UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,761	12/10/2003	David K. McKnight	CA920030010US1	1980

7590   11/15/2006

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EXAMINER
MORRISON, JAY A

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/734,761	MCKNIGHT ET AL.
	Examiner	Art Unit	
	Jay A. Morrison	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2006*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   Claims 1-20 and 22 are pending.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

3.   Claims 1-20,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hellerstein et al. ('Hellerstein' hereinafter) (Patent Number 6,836,894) in view of

Chandra et al. ('Chandra' hereinafter) (Patent Number 6,216,132).

As per claim 1, <u>Hellerstein</u> teaches

"presenting to a user for selection at least one filter, each of said at least one filter describing at least one of a type of objects and a type of relationships between objects, each type of objects and each type of relationships between objects being defined by a schema" (column 11, lines 7-24);

"receiving one or more user-selected filters" (column 11, lines 7-24);

"based on said one or more user-selected filters, selecting a set of objects ... each object of said set containing numerical data having a format suitable for a mathematical analysis" (column 11, lines 24-30);

"arranging said mathematical analysis of said numerical data" (column 11, lines 31-41);

"and plotting a result of said mathematical analysis of said numerical data on a graph" (column 11, lines 31-41).

<u>Hellerstein</u> does not explicitly indicate "selecting a root object ... each object of said set being related to said root object either directly, or through a chain of intermediate objects, where each chain of intermediate objects has the same length and all objects at a given level of each chain have a relationship with a parent object which is identical".

However, <u>Chandra</u> discloses "selecting a root object ... each object of said set being related to said root object either directly, or through a chain of intermediate objects, where each chain of intermediate objects has the same length and all objects at

a given level of each chain have a relationship with a parent object which is identical"

(tree where each level corresponds to attribute, column 5, lines 34-46).

It would have been obvious to one of ordinary skill in the art to combine

Hellerstein and Chandra because using the steps of "selecting a root object … each

object of said set being related to said root object either directly, or through a chain of

intermediate objects, where each chain of intermediate objects has the same length and

all objects at a given level of each chain have a relationship with a parent object which

is identical" would have given those skilled in the art the tools to improve the invention

by enabling the user to use any filtering criterion expressible with the available

predicates. This gives the user the advantage of being able to choose which data to

view and analyze.

As per claim 2, Hellerstein teaches

"obtaining said schema" (structured log descriptor, column 7, line 65 through

column 8, line 34);

"and populating said schema" (normalized data matrix, column 8, lines 35-51)

Hellerstein does not explicitly indicate "with said root object and objects related to

said root object".

However, Chandra discloses "with said root object and objects related to said

root object" (column 5, lines 34-46).

It would have been obvious to one of ordinary skill in the art to combine

Hellerstein and Chandra because using the steps of "with said root object and objects

related to said root object" would have given those skilled in the art the tools to improve the invention by enabling the user to use any filtering criterion expressible with the available predicates. This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 3,

Hellerstein does not explicitly indicate "said schema has object descriptors for describing objects and relationship descriptors for describing possible relationships between objects, said schema associating specific relationship descriptors between specific object descriptors, and at least one of said object descriptors describing a type of numerical data".

However, Chandra discloses "said schema has object descriptors for describing objects and relationship descriptors for describing possible relationships between objects, said schema associating specific relationship descriptors between specific object descriptors, and at least one of said object descriptors describing a type of numerical data" (column 5, lines 34-46).

It would have been obvious to one of ordinary skill in the art to combine Hellerstein and Chandra because using the steps of "said schema has object descriptors for describing objects and relationship descriptors for describing possible relationships between objects, said schema associating specific relationship descriptors between specific object descriptors, and at least one of said object descriptors describing a type of numerical data" would have given those skilled in the art the tools to

improve the invention by enabling the user to use any filtering criterion expressible with the available predicates. This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 4,

Hellerstein does not explicitly indicate "said one or more user-selected filters comprise at least one relationship filter describing a given relationship for selecting objects having said given relationship with a parent object, and at least one object filter describing a given object type for selecting objects having said given object type".

However, Chandra discloses "said one or more user-selected filters comprise at least one relationship filter describing a given relationship for selecting objects having said given relationship with a parent object, and at least one object filter describing a given object type for selecting objects having said given object type" (filter attributes, column 5, lines 54-63 and column 6, lines 7-17).

It would have been obvious to one of ordinary skill in the art to combine Hellerstein and Chandra because using the steps of "said one or more user-selected filters comprise at least one relationship filter describing a given relationship for selecting objects having said given relationship with a parent object, and at least one object filter describing a given object type for selecting objects having said given object type" would have given those skilled in the art the tools to improve the invention by enabling the user to use any filtering criterion expressible with the available predicates.

This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 5,

Hellerstein does not explicitly indicate "said given relationship is one of an attribute relationship and a content relationship".

However, Chandra discloses "said given relationship is one of an attribute relationship and a content relationship" (column 6, lines 7-17).

It would have been obvious to one of ordinary skill in the art to combine Hellerstein and Chandra because using the steps of "said given relationship is one of an attribute relationship and a content relationship" would have given those skilled in the art the tools to improve the invention by enabling the user to use any filtering criterion expressible with the available predicates. This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 6,

Hellerstein does not explicitly indicate "at least one of said relationship descriptors describes a format relationship and said one or more user-selected filters comprise a format filter describing a given format for selecting objects containing numerical data having said given format".

However, Chandra discloses "at least one of said relationship descriptors describes a format relationship and said one or more user-selected filters comprise a

format filter describing a given format for selecting objects containing numerical data having said given format" (column 6, lines 7-17).

It would have been obvious to one of ordinary skill in the art to combine Hellerstein and Chandra because using the steps of "at least one of said relationship descriptors describes a format relationship and said one or more user-selected filters comprise a format filter describing a given format for selecting objects containing numerical data having said given format" would have given those skilled in the art the tools to improve the invention by enabling the user to use any filtering criterion expressible with the available predicates. This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 7,

Hellerstein does not explicitly indicate "said root object is selected based on a user input".

However, Chandra discloses "said root object is selected based on a user input" (consumer registers, column 4, lines 42-54).

It would have been obvious to one of ordinary skill in the art to combine Hellerstein and Chandra because using the steps of "said root object is selected based on a user input" would have given those skilled in the art the tools to improve the invention by enabling the user to use any filtering criterion expressible with the available predicates. This gives the user the advantage of being able to choose which data to view and analyze.

As per claim 8,

"selecting said mathematical analysis based on a user input" (column 11, lines 42-54; column 12, lines 5-15).

As per claim 9,

"said presenting comprises displaying at least one menu having at least one selectable item" (column 11, lines 7-24).

As per claim 10,

"said at least one menu comprises at least one menu providing one or more relationships for selection, and at least one menu providing one or more types of objects for selection" (column 11, lines 7-24).

As per claims 11-20,

These claims are rejected on grounds corresponding to the arguments given above for rejected claims 1-10 and are similarly rejected.

As per claim 22,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 1 and is similarly rejected.

Response to Arguments

4.   Applicant's arguments filed 9/1/06 have been fully considered but they are not

persuasive.

With regards to Applicant's argument that since Hellerstein does not disclose

selecting a root object that Hellerstein cannot teach selecting objects that are related to

a root object, it is respectfully submitted that the Examiner does not argue that

Hellerstein discloses this limitation. Page 4 of the Office Action dated 6/2/2006 shows

that Chandra teaches this limitation and not Hellerstein, therefore the applicant's

arguments are not applicable.

With regards to Applicant's argument that Hellerstein in view of Chandra does

not disclose "each type of objects and each type of relationships between objects being

defined by a schema", it is noted that Hellerstein discloses the data structures of each

component, including log files which include pointers to attributes (column 7, lines 7-24

and column 7, line 63 through column 8, line 5), which defines relationships between

objects as defined in a schema. Therefore Hellerstein discloses the limitation.

With regards to Applicant's argument that Hellerstein in view of Chandra does

not disclose "the step of selecting a set of objects, based on said one or more user-

selected filters", it is noted that Hellerstein discloses the user manipulating data via

selection or filtering of data (column 7, lines 7-10). Therefore Hellerstein discloses the

limitation.

With regards to Applicant's argument that <u>Hellerstein</u> in view of <u>Chandra</u> does not disclose "each object of said set being related to said root object", it is noted that <u>Chandra</u> discloses a search tree including a root node and one or more intermediary nodes (column 5, lines 34-38). Therefore <u>Hellerstein</u> in view of <u>Chandra</u> discloses the limitation.

With regards to Applicant's argument that <u>Hellerstein</u> in view of <u>Chandra</u> does not disclose "chain of intermediate objects has the same length and all objects at a given level of each chain have a relationship with a parent object which is identical", it is noted that <u>Chandra</u> discloses each level corresponding to one filter attribute (column 7, lines 36-40). Therefore <u>Hellerstein</u> in view of <u>Chandra</u> discloses the limitation.

With regards to Applicant's argument that <u>Hellerstein</u> in view of <u>Chandra</u> does not disclose "containing numerical data having a format suitable for a mathematical analysis", it is noted that <u>Hellerstein</u> discloses analyzing data (column 7, lines 9-10). Therefore <u>Hellerstein</u> discloses the limitation.

With regards to Applicant's argument that the Hellerstein and Chandra references cannot be properly combined, it is noted that Chandra provides the motivation wherein the combination would have given the user the ability to use any filtering criterion expressible with the available predicates (column 2, lines 1-8).

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon is

considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-

7112. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the

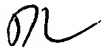organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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TIM VO
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